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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,259	09/11/2003	Mototsugu Ono	1560-0398P	3537

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BIRCH STEWART KOLASCH & BIRCH  
PO BOX 747  
FALLS CHURCH, VA 22040-0747

EXAMINER

CONLEY, SEAN EVERETT

ART UNIT PAPER NUMBER

1744

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/659,259

Applicant(s)

ONO, MOTOTSUGU

Examiner

Sean E. Conley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/11/03, 8/15/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura (Japanese Patent Application Laid-Open No. 2000-237288) in view of (Japanese Utility Model Application Laid-Open No. 06-024760).

Regarding claims 1 and 4, Nakamura discloses a sterilizing and disinfecting apparatus for spraying a sterilizing and disinfecting chemical including alcohol into a target space, comprising: a spray gun (30) having an end nozzle; chemical container (40) containing the chemical, removably attached to said spray gun (30); a cylinder filled with nitrogen gas or a cylinder filled with liquid nitrogen that does not react with the

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alcohol; and a gas line directly connected to the spray gun, whereby the chemical is sprayed into the target space by a function of the carrier gas injected from the end nozzle (see figure 1; paragraphs [0017]-[0020]). Nakamura fails to teach a pressure reducing valve, attached near an outlet of the nitrogen gas cylinder, for decompressing the gas discharge from the outlet to a predetermined pressure, and a gas hose directly connected to the pressure reducing valve and the spray gun.

Japanese Utility Model Application Laid-Open No. 06-024760 (hereafter referred to as '760) discloses a portable disinfectant spray apparatus comprising: a hand truck for mounting a gas cylinder filled with a gas that does not cause contamination and a disinfectant chemical tank thereon; a handheld spray gun connected to an upper end portion of the gas cylinder and a bottom portion of the disinfectant chemical tank through a first pipe and a second pipe respectively; and a third pipe for connecting the upper portion of the gas cylinder to the upper portion of the disinfectant chemical tank, wherein a gas supplied to the spray gun through the first pipe atomizes the disinfectant chemical which is to be supplied to the spray gun through the second pipe (see claims). The truck in figure 1 has two handles (2) and a pair of wheels (3) and support bases (5) and (6) for mounting the gas cylinder (7) and the disinfectant chemical tank (8) thereon. The upper end portion of the gas cylinder is connected to a spray gun (9) through a first pipe (10) (including flexible portion 10a), and in the middle of the first pipe (10) provided are: a pressure gauge (11), a stop valve (12), a pressure reducing valve (13) whose opening angle is predetermined, and another pressure gauge (14) in that order from the gas cylinder (see figure 1, paragraph [0005]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the sterilizing apparatus of Nakamura and include a pressure reducing valve with a directly connected spray gun near the outlet of nitrogen gas cylinder and further the spray gun being attached by a hose as taught by '760 in order to decompress the nitrogen gas when a nitrogen gas cylinder is used instead of a liquid nitrogen tank and further control the pressure of the gas to a predetermined pressure. Furthermore, it would have been obvious to modify the invention of Nakamura and use a flexible hose connecting the spray gun to the pressure reducing valve as taught by '760 in order to provide a user with a hand held spray gun that is movable in multiple directions thus providing increased flexibility with how large of an area that can be treated with the apparatus.

Regarding claim 2, Nakamura doesn't teach an apparatus that is mounted on a common truck. '760 discloses a portable disinfectant spray apparatus comprising: a hand truck for mounting a gas cylinder filled with a gas that does not cause contamination and a disinfectant chemical tank thereon having attached a spray gun for dispensing the liquid disinfectant (see figure 1, paragraph [0005]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Nakamura and mount the apparatus on a common truck as taught by the apparatus of '760 in order to make the device portable and easier to move from one location to another.

Regarding claim 3, Nakamura discloses that the chemical container is detachable attached to the spray gun (see paragraph [0019]).

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean E. Conley whose telephone number is 571-272-8414. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Kim can be reached on 571-272-1142. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

October 13, 2005

SEC

*A. S. C.*

*John Kim*  
JOHN KIM  
SUPERVISORY PATENT EXAMINER